

REMARKS

Claims 1-7, 10, 13-18, and 20-24 are pending. Claims 1-7, 10, 13-18, and 20-24 have been amended. Claims 8, 9, 11, 12, 19 and 25-27 have been canceled without prejudice and retaining the right to prosecute this subject matter in a later application or amendment.

The issues outstanding in this application, from the Office Action of January 25, 2007, are as follows:

- Claim 13 is confirmed to be a product-by-process claim.
- Claims 12 and 19 are rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement.
- Claims 2-7, 10, 12, 13, 15, 16, 18 and 24 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- Claims 21, 21, 23 and 24 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Sweeney (US Pat. No. 823,451).
- Claim 22 is rejected under 35 U.S.C. §103(a) as allegedly being obvious over Sweeney in view of Shaw (US Pat. No. 6,406,003).
- Claims 1, 2, 4-7, 10, 12-15 and 17-19 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over “applicant’s admitted prior art” in view of Querengesser (US Pat. No. 3,021,116) and Sweeney.
- Claims 3 and 16 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over “applicant’s admitted prior art” in view of Querengesser (US Pat. No. 3,021,116) and Sweeney and further in view of Shaw.

I. Product-By-Process Claim

In the Office Action, the Examiner makes note that claim 13 is a product-by-process claims. Applicants acknowledge that Claim 13 is a product-by-process claim and that, therefore, its patentability depends solely on the patentability of the product, not the method steps.

II. Claims 12 and 19, 112, first paragraph, written description

In the Office Action, the Examiner rejected Claims 12 and 19 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement.

Applicants have canceled claims 12 and 19 solely in order to advance prosecution of this case to allowance, and expressly without prejudice, and not in acquiescence to the 112 rejection. Applicants retain all rights to reintroduce the canceled subject matter in this or a related application.

III. Claims 2-7, 10, 12-13, 15, 16, 18 and 24, 112, first paragraph, indefiniteness

Claims 2-7, 10, 12, 13, 15, 16, 18 and 24 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner rejected claims 2-7, 10, 12, 13, 15, and 16, which are dependent claims from claims 1 and 14 which are written in “Jepson” form, under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to indicate whether the added subject matter was part of the admitted prior art, or an improvement over the prior art.

Applicants have amended these claims to more clearly set forth what is being claimed. Specifically, claims 2-7, 10, 12, 15, and 16 add limitations/definitions to the preamble of the Jepson claim – therefore, they add to the claimed subject matter that is admitted prior art.

Applicants assert that the combination of these additional prior art limitations with what is indicated in the independent claims to be an improvement over the prior art, makes these claims patentable.

As opposed to the above amendments and claims, claims 13, 17 and 18 have been amended to more clearly indicate that the additional subject matter of the claim is an additional improvement over the admitted prior art.

IV. Claims 20, 21, 23 and 24, 102(b), over Sweeney

Claims 21, 21, 23 and 24 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Sweeney (US Pat. No. 823,451).

Applicants respectfully traverse. As the amended claims make even more clear, the present claimed invention includes the limitation that the tab end of a member have a protruding tab, and also a recessed, non-tab surface area. The non-tab surface area is shaped such that when the tab is engaged in the tab slot as claimed, the entire non-tab surface area of the member fits flush against the internal surface diameter of the stabilizing surface. This is shown in Figures 3A and 9B of the application as filed, and is described in the specification at, for example, paragraphs 0111, 0112, and 0132.

This limitation is a significant and clearly patentable improvement over the prior art as it allows the entire non-tab end (surface area) of the member to make full, flush, contact with the inner diameter surface area of the stabilizing wall. The importance of this improvement can be demonstrated by, for example, Sweeney.

First of all, Sweeney clearly does not show this claim limitation. For example, figures 2 and 3, and page 2, lines 6-8, show that only the “shoulders” (18) of the recessed non-tab surface of the member (4) make contact with the inner surface of the securing surface. This can clearly be seen in figures 2 and 3, where there is clearly a gap between the inner surface of the stabilizing surface and the non-tab surface of the member and contact is only made at “shoulders” (18). In these figures, the non-tab portion of the member is clearly not shaped such that when the tab is engaged in the tab slot as claimed, the entire non-tab surface area of

the member fits flush against the internal surface diameter of the stabilizing surface. Rather, in Sweeney, the non-tab surface area of the member (4) is not shaped at all to conform to the shape of the inner wall diameter. As can be seen in figures 2 and 3, and page 2, lines 6-8 of Sweeney, the non-tab end surface of member 4 it is simply at a 90 degree angle to the direction of the member (4).

Therefore, in Sweeney the claimed invention is not only not shown, but in fact, it is impossible for the connection disclosed in Sweeney to function as the claimed joint does: Due to the 90 degree angle of the non-tab surface of member (4) of Sweeney, when the tab is engaged, only the “shoulders” (18) of the member can contact the inner side of the securing surface, as described in Sweeney:

In case only one transverse member is to be attached – for example, the member 4 (see Figs. 1 and 3) – it is secured in a manner similar to the member shown in Figs. 1 and 2, . . . the pin projection [being secured in the securing surface] to hold the shoulder 18 at the inner end of the member 4 tightly against the inner wall of the tubular member 1, giving a rigid connection.”

(Sweeney, page 1, line 101 – page 2, line 9).

The present claimed invention is a significant improvement over the prior art, for example as shown in Sweeney. The applicants have found that having the non-tab end of the member shaped such that when the tab is engaged in the tab slot, the entire non-tab surface area of the member fits flush against the internal surface diameter of the stabilizing surface, provides much better stability to the joint – as there is significantly more surface area contact between the member and the inner side of the stabilizing surface. That is, with Sweeney, only the “shoulders” (18) “hold the [member] against the inner end of the member 4 tightly against the inner wall of the tubular member 1, giving a rigid connection.” (Sweeney, page 2, lines 6-9).

Thus, as can be seen by the cited prior art, the claimed invention overcomes a problem that has been long known, but prior to the present invention, unsolved in the art, as shown for example in Sweeney. Applicants understand that what Sweeney shows and describes would place significant force only upon the very small surface area contact between

the shoulders (18) and the inner wall of the securing surface. Again, applicants have found that a much tighter and more stable connection can be made when the entire non-tab surface area of the member is shaped such that it fits flush with the contours or the inner surface of the securing surface.

Furthermore, as claimed in the dependent claims, the novel joint of the claimed invention allows for the entire connection between the non-tab surface area of the member and the inner wall surface area of the securing surface to be sealed, for example, with a silicone sealer. This would not be possible with Sweeney, as the only contact between the non-tab surface of member 4 and the inner wall of the securing surface is where the “shoulder” 18 makes only limited contact.

Therefore, the currently claimed invention is clearly not anticipated by (or, in fact, obvious over) the cited prior art. Applicants therefore respectfully request that the Section 102(b) rejection be removed.

V. Claim 22 under 35 U.S.C. §103(a) as allegedly being obvious over Sweeney in view of Shaw (US Pat. No. 6,406,003)

The Examiner has rejected claim 22 under 35 U.S.C. §103(a) as allegedly being obvious over Sweeney in view of Shaw (US Pat. No. 6,406,003).

Applicants respectfully traverse. Obviousness requires a showing that a combination of art discloses each and every claim limitation.

As discussed above, Sweeney does not disclose or suggest at least the limitation of claim 22 that the recessed non-tab surface area of the member be shaped such that its entire surface area fits flush against the internal surface diameter of the stabilizing surface when the tab is engaged via rotation of the member to engage the tab with the tab-slot via the notch.

Shaw does not supply or suggest this missing claim limitation. Therefore, no prima facie case of obviousness had been made: The combination of references does not teach or suggest the claimed invention.

Therefore, applicants respectfully request that this rejection be withdrawn.

VI. Claim 22 under 35 U.S.C. §103(a) as allegedly being obvious over “applicant’s admitted prior art,” in view of Sweeney in view of Shaw (US Pat. No. 6,406,003)

The Examiner has rejected claims 1, 2, 4-7, 10, 12-15 and 17-19 under 35 U.S.C. §103(a) as allegedly being obvious over “applicants’ admitted prior art” in view of Querengesser (US Pat. No. 3,021,116) and Sweeney.

Applicants presume that “applicants’ admitted prior art” is the subject matter of the preamble of the Jepson claims. Applicants respectfully traverse this rejection because, as with the above rejection, the combination of the cited art and “applicant’s admitted art,” fails to disclose or suggest at least the claim limitation (for all rejected claims) that the recessed non-tab surface area of the member be shaped such that its entire surface fits flush against the internal surface diameter of the stabilizing surface when the tab is engaged via rotation of the member to engage the tab with the tab-slot via the notch.

Therefore, no prima facie case of obviousness had been made: The combination of references does not teach or suggest the claimed invention.

Therefore, applicants respectfully request that this rejection be withdrawn.

VII. Claims 3 and 16, under 35 U.S.C. §103(a) over “applicant’s admitted prior art” in view of Querengesser (US Pat. No. 3,021,116) and Sweeney and further in view of Shaw

Claims 3 and 16 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over “applicant’s admitted prior art” in view of Querengesser (US Pat. No. 3,021,116) and Sweeney and further in view of Shaw.

Applicants again presume that “applicants’ admitted prior art” is the subject matter of the preamble of the Jepson claims. Applicants respectfully traverse this rejection because,

like the above obviousness rejections, the combination of the cited art and “applicant’s admitted art,” fails to disclose or suggest at least the claim limitation (for all rejected claims) that the recessed non-tab surface of the member be shaped such that its entire surface area fits flush against the internal surface diameter of the stabilizing surface when the tab is engaged via rotation of the member to engage the tab with the tab-slot via the notch.

Therefore, no prima facie case of obviousness had been made: The combination of references does not teach or suggest the claimed invention.

Therefore, applicants respectfully request that this rejection be withdrawn.

VIII. Conclusion

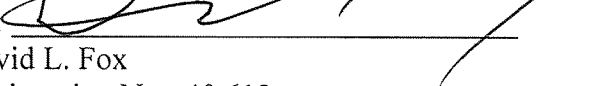
Applicants respectfully submit that each of the pending rejections have been traversed and, therefore, respectfully request that the pending claims be allowed.

Should there be any final issues to resolve prior to issuing a Notice Of Allowance, the Examiner is encouraged to call the undersigned to resolve any such issues.

Applicant believes no other fee is due with this response. However, if a fee is due, please also charge our Deposit Account No. 06-2375, under Order No. HO-P02877US0.

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Respectfully submitted,

By: 

David L. Fox
Registration No.: 40,612
FULBRIGHT & JAWORSKI L.L.P.
Fulbright Tower
1301 McKinney, Suite 5100
Houston, Texas 77010-3095
(713) 651-8231
(713) 651-5246 (Fax)
Attorney for Applicant